TRANSLATION PATENT COOPERATION TREATY POT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 04-F-054PCT			FOR FURTHER ACTION See Fo		n PCT/IPEA/416		
Internation	al application No.		International filing da	te (day/month/yea	r) Priority of	date (day/month/year)	
	JP2004/0173	312	15.11.200	4		11.2003	
Internation	al Patent Classification	(IPC) or natio	l onal classification and l	IPC			
B29C4	45/14, B29C	45/73,	B29K105/2	0			
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Applicant							
OGURA	A CLUTCH CO)., LTD).				
	. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.						
2. T				sheets, i	ncluding this cove	r sheet.	
3. T	his report is also accom	panied by Al	NNEXES, comprising:				
a	. (sent to the a	pplicant and	to the International Bu	reau) a total of _	7	sheets, as follows:	
						nd are the basis for this report and/or	
	Instruct		tifications authorized t	by this Authority	(see Kule 70.16 ai	nd Section 607 of the Administrative	
		_			-	ain an amendment that goes beyond of Box No. I and the Supplemental	
ь	o. [(sent to the I	nternational E	Bureau only) a total of (indicate type and	number of electro	onic carrier(s))	
		•				ning a sequence listing and/or tables	
	related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).						
4. T	his report contains indi	cations relatir	ng to the following item	ns:			
	Box No. I	Basis of the	report				
L	Box No. II	Priority					
L	Box No. III	Non-establis	shment of opinion with	regard to novelty	, inventive step an	d industrial applicability	
	Box No. IV	Lack of unit	y of invention				
	Box No. V		atement under Article 3 Lexplanations supporti			ve step or industrial applicability;	
	Box No. VI	Certain docu	ments cited				
	Box No. VII	Certain defe	cts in the international	application			
	Box No. VIII	Certain obse	rvations on the interna	tional application			
Date of submission of the demand Date of completion of this report			<u> </u>				
Name and mailing address of the IPEA/JP			Authorized office	er			
Faccimila No			Talanhana Ma				

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/017312

Box	k No. I	[Basis of the report					
1.			I to the language, this report is based on the internation ander this item.	onal application in the language in	n which it w	as filed, unless otherwise		
			report is based on translations from the original langua n is the language of a translation furnished for the purp			,		
			international search (Rule 12.3 and 23.1(b))					
		\sqcup	publication of the international application (Rule 12.4	4)				
			international preliminary examination (Rule 55.2 and	/or 55.3)				
2.	rece	th regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the eiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to greport):						
		the in	ternational application as originally filed/furnished					
	\boxtimes	the de	escription:					
		pages	1–36			as originally filed/furnished		
		pages						
		pages	*	received by this Authority on				
	\boxtimes	the cl	aims:					
		nos.	·			as originally filed/furnished		
		nos.*						
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		sheets		_				
		sheets						
ļ		a sequ	uence listing and/or any related table(s) – see Supplem	ental Box Relating to Sequence I	Listing.			
3.	\boxtimes	The a	mendments have resulted in the cancellation of:					
			the description, pages					
		\boxtimes	the claims, nos. 6,15					
		\sqcup	the drawings, sheets/figs					
		\sqcup	the sequence listing (specify):					
		Ш	any table(s) related to sequence listing (specify):					
4.			report has been established as if (some of) the amendave been considered to go beyond the disclosure as fi					
		Ш	the description, pages			· · · · · · · · · · · · · · · · · · ·		
		Ш	the claims, nos.					
			the drawings, sheets/figs					
			the sequence listing (specify):					
	any table(s) related to sequence listing (specify):							
*	If ite	ет 4 ар	plies, some or all of those sheets may be marked "sup	erseded."				

International application No.
PCT/JP2004/017312

Box		ment under Article 35(2) with regard to novelty, inventive step or industrial applicability; eplanations supporting such statement	
1.	Statement		
	Novelty (N)	Claims 1-5, 7-14, 16-22	YES
		Claims	_ NO
	Inventive step (IS)	Claims	YES
		Claims 1-5, 7-14, 16-22	_ NO
	Industrial applicability (IA	Claims 1-5, 7-14, 16-22	YES
		Claims	
2.	Citations and explanations (Ru		
		JP 2002-248649 A (Mitsuboshi Belting Ltd.),	
		03 September 2002, paragraph [0016]	
		JP 11-105076 A (Suzuka Fuji Xerox Co.,	
		Ltd.), 20 April 1999, paragraphs [0002] and [0060]	
	Document 3: 0	JP 2002-264189 A (Ricoh Co., Ltd.), 18	
		September 2002, claims and paragraph [0048]	
		Microfilm of the specification and drawings	
		annexed to the request of Japanese Utility	
		Model Application No. 67282/1988 (Laid-open	
		No. 169314/1989) (Meiki Co., Ltd.), 29	
		November 1989, claims	
		•	
		JP 2-41222 A (Tigers Polymer Corp.), 09	
		February 1990, page 3, upper right column,	
		lines 1 to 5	
		JP 2001-1382 A (Mitsubishi Electric Corp.),	
		09 January 2001, paragraphs [0026] to	
		[0028]	
	Document 7: 3	JP 5-245871 A (Asahi Glass Co., Ltd.), 24	
		September 1993, example 1	
	Document 8: 3	JP 52-49266 A (Mitsui Petrochemical Ind.),	
		20 April 1977, example 1	
	Document 9:	JP 1-310924 A (Nippon Petrochemicals Co.,	

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Ltd.), 15 December 1989, example 1

Document 10: JP 10-180797 A (Canon Inc.), 07 July 1998, paragraphs [0005] to [0009], [0075] and [0094]

Document 11: JP 7-60556 A (Nippon Seiko Kabushiki Kaisha), 07 March 1995, paragraphs [0044] and [0045]

The inventions set forth in claims 1 to 4 and 9 to 13 do not involve an inventive step in the light of the inventions disclosed in documents 1 to 4, which are cited in the international search report, and documents 7 to 11, which are newly cited. Documents 1 and 11 indicate that the molding dies disclosed therein are maintained at a temperature of 40°C or higher. Meanwhile, techniques wherein the insert material is preheated before insertion into the die in order to reduce the residual deformation of the molded article and to prevent the cracking of the resin are well known, as disclosed in documents 2 and 7 to 10, while techniques wherein the insert-molded product is extracted from the die and then gradually cooled are commonly used, as is indicated in documents 3 and 4. Such being the case, it would have been obvious to a person skilled in the art to apply the techniques disclosed in documents 2 to 4 and 7 to 10 in the invention disclosed in document 1 or 11.

In addition, techniques wherein the insert material is heated to a temperature higher than that of the die are well known in the technical field in question, as disclosed in documents 7 to 10.

Furthermore, techniques wherein the insert material is subjected to a shot-blasting treatment and a silane

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

coupling treatment in order to improve the peelresistance characteristics thereof are considered to have
been well known on the filing date of the present
application, as disclosed in document 11.

The inventions set forth in claims 5 and 14 do not involve an inventive step in the light of the inventions disclosed in documents 1 to 4, document 5 cited in the international search report, and documents 7 to 11. Document 5 discloses an invention wherein the resin coating has a thickness of between 5 μ m and 30 mm.

The inventions set forth in claims 7, 8 and 16 to 22 do not involve an inventive step in the light of the inventions disclosed in documents 1 to 4 and documents 7 to 11. It would have been obvious to a person skilled in the art to apply the characteristic improving techniques that are disclosed in documents 1 to 4 in order to prevent problems such as the cracking of the resin or the peeling of the resin.

In addition, the matter of whether the gears that have been coated with a resin intermesh with gears that have not been coated with a resin or not is merely one of design, and as such can be configured in an appropriate manner by a person skilled in the art.